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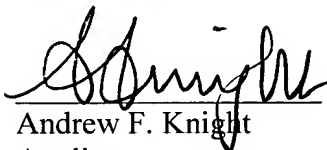
COMMUNICATION TO EXAMINER

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Dear Sir:

FYI, attached please find an article from the November, 2004 issue of the *Journal of the Patent and Trademark Office Society*, entitled "A Potentially New IP: Storyline Patents."

Respectfully,



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A Potentially New IP: Storyline Patents

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In a series of cases beginning with *Diamond v. Chakrabarty*, which made famous the phrase "anything under the sun that is made by man" to describe statutory subject matter under 35 U.S.C. §101, the Federal Circuit has clarified that the truly expansive scope of Section 101 includes computer software, in spite of a blatant violation of the so-called printed matter doctrine, now relegated to an historical legal has-been. This paper posits the existence and allowability under Section 101 of "Storyline Patent" claims, which aim to protect not the copyrightable expression of a unique underlying storyline, but the storyline itself — in the form of either the process necessary to implement the unique fictional plot in an entertainment medium, or in terms of the medium itself. Not only should such claims be deemed statutory subject matter under current U.S. law, but the public policy rationales for the acceptance of Storyline Patent claims mirror those of any other type of patent claim.

I. INTRODUCTION

In the *Diamond v. Chakrabarty*, the Supreme Court held that living, genetically engineered bacteria were within the scope of utility patent protection under 35 U.S.C. §101, on the basis that Congress intended statutory subject matter to "include anything under the sun that is made by man."¹ Since then, Section 101, which statutorily includes "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof," has been read to include

computer software², business methods³, even asexually reproducing hybrid plants⁴, which would ordinarily be covered by plant patents.

The exclusionary effect of Section 101 is limited to "laws of nature, natural phenomena, and abstract ideas."⁵ The tension between patent and copyright protection has historically been addressed by the judicially created "printed matter doctrine," which excludes printed matter *per se* from patent protection under Section 101, on the basis that intellectual property protection is already afforded under copyright law. However, even the patentability exclusions of the printed matter doctrine have been whittled away by the present patentability of a storage medium—read: a non-novel storage medium currently existing in the prior art — containing patentable software that has no functional relationship to the storage medium itself.⁶ The fact that disk-contained software is "printed matter" that is both patentable for the method that it executes on a machine as well as copyrightable for its particular expression of the machine-executable method is happily embraced by U.S. law.

This IP protection dichotomy is easily understood when one recognizes that the underlying functional method that a software relays to a machine is fundamentally distinct — and valuable in its own right — from the software's particular expression (i.e., its code) of that underlying method. In other words, poorly written software implementing a valuable new method is nevertheless valuable, in spite of the code's quality; vice versa, particularly well written software implementing an old method is also valuable, in spite of the method's archaicism.

Applying analogous reasoning, this paper will address whether a fictional plot or storyline, itself, may pass the test of patentability under Section 101. Like software, a fictional story may include two valuable features: the underlying storyline and the particular expression of that storyline. Like software, the latter is clearly protectible under copyright law. And, like software, the former should be protectible under patent law.

One goal of this paper is to convince the reader that for those literary or cinematic works containing refreshingly original storylines, at least a portion of the social value of those works is in the storylines themselves, distinct from the particular expression of those storylines. If so, public

² *AT&T Corp. v. Excel Communs., Inc.*, 172 F.3d 1352, 50 U.S.P.Q.2D (BNA) 1447 (Fed. Cir. 1999).

³ *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368, 47 U.S.P.Q.2D (BNA) 1596 (Fed. Cir. 1998).

⁴ *Pioneer Hi-Bred Int'l, Inc. v. J.E.M. Agric. Supply, Inc.*, 200 F.3d 1374, 53 U.S.P.Q.2D (BNA) 1440 (Fed. Cir. 2000).

⁵ *Diamond v. Diehr*, 450 U.S. 175, 185, 209 U.S.P.Q. (BNA) 1 (1981).

⁶ *In re Beueregard*, 53 F.3d 1583, 35 U.S.P.Q.2D (BNA) 1383 (Fed. Cir. 1995).

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1447 U.S. 303, 309, 206 U.S.P.Q. (BNA) 193 (1980).

policy dictates a need for legal protection, in the form of intellectual property rights, for the entire work — expression *and* storyline.

II. PATENT LAW

A valid U.S. patent must satisfy, at a minimum, the requirements of Sections 101 (“utility”), 102 (“novelty”), 103 (“nonobviousness”), and 112 (“definiteness”) of 35 U.S.C. Passing each of these tests is not equally difficult; by far the most common bases for final rejection of patent applications is novelty and nonobviousness. The Section 101 test — i.e., showing that the claimed invention is patentable subject matter — has the lowest threshold of all.

A. EXCEPTIONS TO STATUTORY SUBJECT MATTER

Section 101 includes as patentable subject matter “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof....” In *Diamond v. Chakrabarty*, the U.S. Patent and Trademark Office had rejected the applicant’s claims to a human-made, genetically engineered bacterium on the grounds that the legislative history of a 1930 Plant Patent Act indicated that Congress did not intend to cover living things, such as these laboratory-created microorganisms, within the scope of Section 101. In response, the Supreme Court relied on Committee Reports accompanying a 1952 Act recodifying the patent laws which indicated that Congress intended statutory subject matter to “include anything under the sun that is made by man,” and thus included living, genetically engineered bacteria.⁷ While Section 101 should be read extremely broadly, the Court reminded the nation that specifically excluded from statutory subject matter are the laws of nature, physical phenomena, and abstract ideas. As examples, the Court cited naturally occurring minerals and plants as well as the law of gravity and Einstein’s famed mass-energy equality $E=mc^2$.⁸

A mathematical algorithm or equation had historically been treated as an unpatentable law of nature or abstract idea. See, e.g., *Gottschalk v. Benson*, in which the Supreme Court held that claims to a mathematical algorithm for converting binary code decimal numbers to equivalent pure binary numbers were unpatentable under Section 101 because otherwise “the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm

⁷ 447 U.S. 303, 309, 206 U.S.P.Q. (BNA) 193 (1980).
⁸ *Id.* at 309.

itself.”⁹ However, the Court in *Diamond v. Diehr* recognized that the mere application of a well-known mathematical equation by a computer to an otherwise patentable process does not of itself kill patentability, because the applicants “seek only to foreclose from others the use of that [unpatentable] equation *in conjunction* with all of the other steps in their claimed process.”¹⁰

State St. Bank & Trust Co. v. Signature Fin. Group involved the validity of claims directed to a data processing system that implemented a mathematical algorithm to perform a useful business method. The claims were challenged under both the “mathematical algorithm exception” and “business method exception” to patentable subject matter.¹¹

Regarding the former, the Court recognized that, fundamentally, every process is or includes an algorithm. That Congress specifically included “process” within Section 101 is sufficient to conclude that an algorithm is not necessarily excluded from the realm of patentable subject matter.¹² The court concluded that mathematical algorithms unpatentable under Section 101 are limited to “merely abstract ideas constituting disembodied concepts or truths that are not ‘useful.’”¹³ The dispositive inquiry, held the Court, is whether the claim as a whole is directed to statutory subject matter, even if the claim contains some subject matter (e.g., a mathematical algorithm) that may not be patentable by itself. Because the claims were directed to a useful machine *implementing* the mathematical algorithm and producing a “useful, concrete and tangible result,” the claims did not fail under the mathematical algorithm exception.¹⁴

Regarding the latter, the Court clarified that the breadth of coverage afforded by a patent on a business method should be addressed under Sections 102, 103, and 112. However, a business method is just that — a method — and falls within statutory subject matter by its very nature.¹⁵

The Federal Circuit eventually had to face up to the inevitable truth about computers: that software, like a mathematical equation, is nothing more than an algorithm for converting an input into a desired output. Can software, in and of itself, pass muster under Section 101? Unlike *State Street*, in which claims to a useful machine were at issue, *AT&T*

⁹ 409 U.S. 63, 72, 175 U.S.P.Q. (BNA) 673 (1972).

¹⁰ 450 U.S. 175, 187, 209 U.S.P.Q. (BNA) 1 (1981), emphasis added.

¹¹ 149 F.3d 1368, 1372, 47 U.S.P.Q.2D (BNA) 1596 (Fed. Cir. 1998).

¹² *Id.* at 1374.

¹³ *Id.* at 1373.

¹⁴ *Id.* at 1375.

¹⁵ *Id.* at 1377.

Corp. v. Excel Communs., Inc. was addressed to a bare machine-executed process — i.e., software itself — to determine a value of a primary interexchange carrier ("PIC") indicator in telephone systems.¹⁶ Consistent with the continually expanding scope of statutory subject matter, the Court first trashed any differential treatment under Section 101 between machines and processes, and held that the claimed process, implemented by software, is statutory subject matter because it "applies [a] Boolean principle to produce a useful, concrete, tangible result without pre-empting other uses of the mathematical principle."¹⁷ The prohibition from statutory subject matter against mathematical algorithms is truly narrow, and does not apply where it is "applied in a practical manner to produce a useful result."¹⁸

Two cases are instructive on the meaning of "abstract idea." First, in *In re Warmerdam*, the applicant claimed a two-step process that produced no useful, tangible result. The Court held that the claims involved nothing more than the "manipulation of basic mathematical constructs," in spite of the fact that the claimed method, in conjunction with other steps, could produce a useful result. An apparatus performing the method was found to be statutory subject matter, but merely "taking several abstract ideas and manipulating them" does not pass muster under Section 101.¹⁹ Second, in *In re Bonczyk*, a pro se inventor had claimed the following: "A fabricated energy structure for a uniform energy of the type having a single nature separated to oppose itself by a precise alternate time duration of existence that creates the dual nature for supporting and extending the Fabricated energy..." The Court held that an incomprehensible claim to an abstract energy structure failed to fall within any of the four statutory classes.²⁰

B. THE PRINTED MATTER DOCTRINE

Another historical exception to statutory subject matter is known as the "printed matter doctrine," loosely defined as the principle that printed matter (e.g., a book) is not, per se, patentable.²¹ This doctrine rests on shaky legal authority and, in any event, has been whittled away to an

¹⁶ 172 F.3d 1352, 1358, 50 U.S.P.Q.2D (BNA) 1447 (Fed. Cir. 1999).
¹⁷ *Id.*

¹⁸ *Id.* at 1360.

¹⁹ 33 F.3d 1354, 1360, 31 U.S.P.Q.2D (BNA) 1754 (Fed. Cir. 1994).

²⁰ 10 Fed. Appx. 908, 911 (Fed. Cir. 2001).

²¹ A related, and perhaps identical, doctrine is that nonfunctional descriptive material in a claim is not afforded patentable weight over prior art. The concept appears in the *Manual of Patent Examining Procedure*, but sound or binding legal basis for it is utterly lacking.

archaic common law has been. Even its current application in proving unpatentability over prior art has become an unpersuasive legal argument.

In *In re Gulack*, the applicant claimed a wearable ribbon containing various numbers and equations, intended to assist the wearer in performing various arithmetic calculations.²² The Board of Patent Appeals and Interferences had overturned the Examiner's §101 rejection of the claims under the printed matter doctrine, on the basis that the ribbon was clearly a statutorily allowed "article of manufacture."²³ The question at issue was whether the printed matter doctrine prevented the numbers and equations printed on the ribbon from receiving patentable weight under Sections 102 and 103. In other words, the printed matter doctrine — what little of it remains today — relates to the question of prior art, not of statutory subject matter. The Court stated that "where the printed matter is not functionally related to the substrate, the printed matter will not distinguish the invention from the prior art in terms of patentability," and held that the ribbon was patentable "because the printed matter was both functionally related to the ribbon and because the relationship was new and nonobvious."²⁴

In *Ex parte Robert W. Carver*, the applicant claimed a stereophonic recording which, when the recording is played on a stereo player machine, creates sounds in one location that cancel out certain sound patterns received at an opposing location.²⁵ The court found that the sound information (which is legally equivalent in this analysis to words on a page) stored on a recording medium (which is legally equivalent to a sheet of paper) did not evoke the printed matter doctrine because "the claims, when considered as a whole... broadly define an article of manufacture (i.e., the recording in which the sound pattern is embodied) rather than a sound pattern per se."²⁶ The truly amazing fact, as pointed out by the Dissent, is that the claimed recording involved a *sound pattern* recorded on any one of a variety of possible substrates (records, magnetic tapes, CDs, etc.) with *no functional relationship* to the chosen substrate. Thus, in finding that the claims distinguished over the prior art, the Court ultimately gave the sound pattern per se patentable weight and implicitly destroyed the printed matter doctrine, even as applied to Sections 102 and 103.

²² 703 F.2d 1381, 217 U.S.P.Q. (BNA) 401 (Fed. Cir. 1983).

²³ *Id.* at 1384.

²⁴ *Id.* at 1385.

²⁵ 227 U.S.P.Q. (BNA) 465 (Board of Patent Appeals and Interferences, 1985).

²⁶ *Id.*

The "functional relationship" test was finally put to rest in *In re Lowry*, in which the applicant's claims related to the storage, use, and management of information residing in a memory.²⁷ First, noting that the printed matter doctrine under Section 103 stood on questionable legal and logical footing anyway, the Court distinguished the present case over past printed matter cases, which "dealt with claims defining as the invention certain novel arrangements of printed lines or characters, useful and intelligible only to the human mind [as opposed to a machine]."²⁸ However, the asserted mind-machine dichotomy is a distinction without a difference in an electronic world in which books are often read on a computer screen and printed words and sentences may optically scanned and read as "useful and intelligible" commands to a computer. Second, recognizing that its asserted mind-machine dichotomy may be insufficient, the Court reduced the printed matter issue to one question: does the claimed method *perform a function*?²⁹ Of course, it is difficult to formulate a method that does not perform a function of some kind.

In *In re Beauregard*, the applicant's computer program product claims were rejected as nonstatutory on the basis of the printed matter doctrine.³⁰ During appeal, the Commissioner of Patents, apparently realizing the futility of arguing the printed matter doctrine, changed the Patent Office's position such that "computer programs embodied in a tangible medium, such as floppy diskettes, are patentable subject matter under 35 U.S.C. § 101 and must be examined under 35 U.S.C. §§ 102 and 103." In stating that no controversy existed, the Court put the printed matter doctrine, as a whole, to rest.

What is surprising but equally clear, given the above-discussed law, is that a *sheet of paper* upon which patentable software is printed *is patentable*. Software is merely a set of instructions to a processor for performing a method, and may be written in *any* conceivable language and on *any* conceivable substrate. It makes no difference that the software language used may also be intelligible to and readable by a human mind. Consider, for example, a software language that reads like ordinary English. A sheet of paper is then imprinted with a program software, and is intended to be fed into a computer processor via an

optical scanner that reads and executes the software's method, but can just as easily be read and "executed" by a human person. Make no mistake. The imprinted sheet of paper is the very epitome of printed matter. Yet, under *In re Beauregard*, the imprinted medium," and must be "computer [program] embodied in a tangible medium," and must be examined for patentability under Sections 102 and 103. In other words, if the software's method is patentable, so is the imprinted sheet of paper.

In fact, a patentable method may be embodied in a book-bound fictional novel. Because a processor may be programmed to glean instructions for performing the patentable method directly from the novel's words, the novel itself may be a patentable article of manufacture. Until Congress legislates otherwise or a high court revives it, the printed matter doctrine is dead.

III. STORYLINE PATENTS

At the turn of the century, Writer/Director Christopher Nolan created a masterpiece in *Memento*, a motion picture which will serve as a working example. The motion picture tells the story of Leonard, a man who was attacked by a perpetrator who raped and killed his wife. The attack left him brain-damaged and incapable of creating new memories, so that each hour-long bout of conscious continuity is accompanied by an initial period of "waking up" and briefly learning — by looking at often freshly-drying Polaroid pictures — of his whereabouts, his mission, and his purpose.

To help place the audience in Leonard's shoes, the audience too is denied the opportunity to remember past events: the movie is shown in short segments in reverse chronological order. Thus, the movie begins with Leonard finding and killing the supposed perpetrator — a Polaroid in Leonard's hand labeled, "Teddy. Don't listen to his lies. He's the one. Kill him." — and progresses in reverse to show each of Leonard's steps toward identifying and hunting Teddy. The storyline ends in its chronological beginning when Leonard, in a saddening and emotionally charged realization that his prospects for retribution (indeed, for any meaningful endeavor) were impossibly slim in his hazy world of confusion, intentionally identifies Teddy, whom he knows is not the real perpetrator, as his prey.

This structure of the movie — while gripping and brilliant — may or may not be novel. Nevertheless, that the method of creating a movie in this manner is statutory subject matter under Section 101 is indisputable.

²⁷ 32 F.3d 1579, 32 U.S.P.Q.2D (BNA) 1031 (Fed. Cir. 1994).

²⁸ *Id.* at 1583.

²⁹ *Id.* at 1584.

³⁰ 53 F.3d 1583, 35 U.S.P.Q.2D (BNA) 1383 (Fed. Cir. 1995).

Further, the motion picture as a whole, screenplay included, is clearly copyrightable. What some may dispute is whether the movie's underlying storyline, including what is probably a legally novel and nonobvious (not to mention shocking) plot twist at its chronological beginning, is statutory subject matter under current patent law.

How might a claim in a plot or storyline patent be structured? A court might competently reason that a story in the abstract is just that: an unpatentable abstract idea. However, that a book-bound fictional novel is unpatentable merely by nature of its being printed matter has been, I believe, refuted by the assertion that such a novel could be, in a very real sense, a patentable computer program embodied in a tangible medium — thus, a patentable article of manufacture. A particularly skilled patent attorney could convert a unique storyline into a method performed by one of a series of possible infringers, including: a movie's writers, directors, actors, and producers; a theater's owners and employees; a movie seller's owners and employees; a novel's authors, publishers, and printers; a bookseller's owners and employees; consumers of the movie, novel, or other products; and so forth. Consider an example claim — which may be dubbed a "storyline method claim" — to a functional method of implementing *Memento's* plot to the "useful, concrete, tangible result" of producing valuable entertainment:

A process of relaying a story having a unique plot, the story involving characters and having a timeline, comprising:

indicating that a first character has an inability to retain long-term memories after a time in the timeline;

indicating that said first character trusts notes written by said first character;

indicating that said first character believes that said first character has been wronged by a perpetrator;

indicating that said first character desires to perform an act of retribution against said perpetrator;

indicating that said first character believes that attempting to perform said act is a futile endeavor; and

indicating that said first character writes a note to said first character indicating that a second character, whom the first character believes is not the perpetrator, is the perpetrator.

The above example, which seems to catch the essence of the movie's underlying storyline, looks and feels like a method — an ordinary, functional, useful method. Subjective words such as "trusts," "believes," "desires," and "wronged" should not raise problems of indefiniteness under Section 112 because the steps actually being performed are "indicating." In other words, a step of "desiring" might be problematic because desiring is an introspective, subjective mental process that can doubtfully be measured and, nevertheless, produces no useful, tangible result per se. However, "indicating a desire" is clear — a jury *knows* what that looks like, particularly if the specification gives concrete examples of how one might indicate a desire, and it produces a useful, tangible result: an indication.

Notice that the above claim form is aimed broadly. A director infringes it at least when she makes a movie implementing the implicitly claimed storyline (and possibly at other times, such as a showing of the movie); an actor infringes it at least when he plays his part as the first character; an owner of a movie theater infringes it at least when he shows the movie; the consumer infringes it at least when she plays a DVD containing the movie; and so forth.

Of course, different claim forms can and should be tested. The author has submitted to the U.S.P.T.O. several test patent applications on novel storylines, utilizing various claim forms and a creatively distributed lexicon. Regardless of which structures and words, if any, ultimately pass muster in the Patent Office and subsequent litigation, the present pursuit is guided by the realization that, fundamentally, the making of a movie (or writing of a novel or filming of a television show, etc.) involving a new, nonobvious storyline requires the performance of *certain definite steps*. The combination of the fewest steps necessary to produce a movie or novel or show having the new storyline is a method that should be and, consistent with existing law, probably is patentable.

IV. ANALYSIS

The legal analysis is straightforward. A method is a method and should be examined as such.³¹ The Supreme Court has made clear that statutory subject matter includes "anything under the sun that is made by man."³² Unless the claimed invention is merely a law of nature³³, a

³¹ *State St. Bank* at 1377.

³² *Chakrabarty* at 309.

³³ *Id.*

natural phenomenon³⁴, a manipulation of basic mathematical constructs³⁵, an abstract idea constituting disembodied concepts or truths that are not useful³⁶, or an incomprehensible claim to an abstract energy state³⁷, it is patentable subject matter. There is simply no statutory or common law exempting from patentability a useful method for producing entertainment.

Other claim forms, besides methods, may also be patentable subject matter, such as an article of manufacture containing the storyline. Consider a claim — which may be dubbed a “storyline article claim” — to a storage medium, such as a DVD or video cassette:

A machine-readable storage medium storing information and configured to cause a machine to perform a process of relaying a story having a unique plot, the story involving characters and having a timeline, the process comprising:
indicating that a first character...

The above claim format is substantively indistinguishable from the thousands of computer program product claims allowed by the Patent Office since *In re Beauregard*. If a computer disk containing a functionally unrelated but independently patentable software is patentable, should not a DVD containing an independently patentable storyline (in the form of a method executed by a consumer via her DVD player) also be patentable? Further, as previously discussed, a book-bound fictional novel containing a patentable method is probably patentable simply because the inscriptions in the pages of a novel just are a computer program — given a computer programmed to read prose as a software language. A patentable software program embodied in a tangible medium is patentable. Analogously, a patentable storyline method embodied in a tangible medium — e.g., a novel — may also be patentable subject matter.

A storyline method or article claim, such as the ones offered above, would have all the rights and responsibilities of any other patent claim. For example, a patent on a particular software method or software-containing medium would cover every embodiment of the claimed

invention: whether the software is written in C++, Pascal, or XML, whether the software is continuous or contains multiple subroutines, whether the software includes explanatory editorial notes or not, whether an input is called “I” or “Input4,” and so forth. Each different expression of the underlying software may be independently copyrightable, but every expression would be covered by the patent. Similarly, a patent on a particular storyline method or storyline-containing article or manufacture would cover every embodiment of the claimed invention. Every possible expression of the storyline — whether involving five characters or ten, whether set in Amsterdam or Chicago, whether told in the first person by a Nigerian heroine or in the third person by a Chinese hero, whether embodied in a novel, a script, a movie, an advertisement, a television program, or a radio show — would require infringement of the claimed method or article of manufacture. Again, each different expression of the underlying storyline may be independently copyrightable, but every expression would be covered by the patent. Just as a patent granted on a software method or software-containing medium effectively covers the underlying software itself, so a patent granted on a storyline method or storyline-containing article of manufacture effectively covers the underlying storyline itself.

However, a valid plot or storyline claim would also have to maintain important responsibilities. Though the present paper advocates the proposition that storyline claims — drafted either as the methods necessary to create the useful, tangible entertainment forms containing those storylines, or as the articles of manufacture (e.g., electronic or printed media) actually containing those storylines — are patentable subject matter under Section 101, that the claims must also pass the other more stringent tests of patentability cannot be overemphasized. An old storyline can never be patentable (Section 102). A storyline obvious to one of ordinary skill in the art can never be patentable (Section 103). An indefinite storyline can never be patentable (Section 112). As with any expansion in the scope of available patent protection, such as that to include so-called business methods, there is concern that intellectual property previously commonly owned is suddenly stripped of its public status. But such is the province of the primary gatekeepers of patent law: Sections 102 and 103. In other words, there is no fear that expanding the scope of Section 101 will strip from the public its property if the property did not already exist.

³⁴ *Id.*

³⁵ *In re Warmindam* at 1360.

³⁶ *State St. Bank* at 1373.

³⁷ *In re Bonczyk* at 911.

V. PUBLIC POLICY

Chances are quite good that, guided by existing case law and Patent Office policy, a storyline method would be treated as just that: a statutory method that must be evaluated for novelty, nonobviousness, and other statutory requirements. And, insofar as the printed matter doctrine is dead, particularly as it applies to a functional method embodied in a tangible medium, chances are also good that a storyline article of manufacture (e.g., a DVD or book) would be treated similarly. However, one cannot avoid that patent law is guided, both legislatively and in courts, by a public policy that has a primary aim of increasing the wealth of the public domain by enticing inventors to invent (and publicize their inventions) in exchange for limited-term exclusive rights to their respective inventions, and a secondary aim of fairness to inventors. Are these aims served by acknowledging that storyline methods and articles of manufacture are, indeed, statutory subject matter?

No doubt there is the practical concern that no competent examining unit at the Patent Office currently exists to examine such patent applications. However, this concern is not sufficient by itself to exclude otherwise patentable subject matter from examination. The same issue was faced — and ultimately addressed via iterative steps of improving Patent Office examination quality and invalidating non-novel or legally obvious patents during litigation — several times before, most notable with the Federal Circuit's allowance of business method patents in *State St. Bank*. The question remains: should storyline patents be granted?

If the previously offered example of *Memento* provides any indication, an embodied story (whether in a novel, a movie, a television program, a radio show, an advertisement, etc.) can have two valuable features: the underlying storyline and the particular creative expression of that storyline. The underlying storyline of *Romeo and Juliet*, at the time of its creation, was neither novel nor excessively creative. Children of two warring families enduring a tragic love affair is probably as old as spoken language. But the particular expression of that underlying storyline is today as brilliant and beautiful as the day it was written. Conversely, one could imagine a plot so inventive, so surprising, and so profound that *any* expression of it is valuable. Such would be the scope of a storyline patent.

There is something fundamentally inventive — in the same way that conceiving of a new rocket engine design is inventive — about creating a new storyline. The flash of inspiration is the same. One does not conceive of a new rocket engine by *building* a rocket, but one could

express that conceived engine by doing so. Analogously, one does not conceive of a plot by expressing it, but one could express a conceived plot. The spark of ingenuity is what gives rise to the infinitely many ways of expressing an invention — whether in the form of a tangible rocket engine or a novel — but without the invention there is nothing to express. A particular rocket engine is but one of infinitely many embodiments of a rocket engine invention, just as a particular novel is but one of infinitely many embodiments of a storyline invention. They are both inventions in a very real sense, distinct from their possible expressions.

Consider an analogy to what is clearly patentable subject matter — an automobile — and how a hypothetical lack of available utility patent protection would impact the above stated public policy aims. Assume, for example, an automobile could only be protected under a design patent (which acts as a sort of “copyright” on ornamental designs). An inventor, in a flash of inspiration, conceives of a novel internal combustion engine that is twice as efficient as existing engines. He attempts to obtain intellectual property protection on what is the very epitome of a useful, valuable invention. Sadly, he is a terrible automobile designer and a particularly bad artist, such that the scope of his attempted design patent protection is limited to an ugly automobile that will not sell. Meanwhile, a non-inventor, who is in contrast a skilled designer and artist, has spent his career misappropriating the good ideas of others and compiling them into aesthetically pleasing final products. He learns of the inventor's original conception of a highly efficient engine and incorporates it into his next automobile design. His works, of course, are protectible under the same design patent laws, the difference being that the non-inventor's protection is *infinitely* more valuable — after all, given the choice between two automobiles, both incorporating the novel high-efficiency engine and identical except for their appearances, *every* consumer will choose the more aesthetically pleasing of the two — in spite of the non-inventor's outright misappropriation of the inventor's good idea. Such a scenario would trump patent law's stated aims because, first, would-be inventors of novel high efficiency engines would have little or no economic incentive to publicize their inventions (or even to invent at all, particularly where trade secret maintenance is a practical impossibility), and second, fairness dictates that the inventor receive protection for what he really invented: a valuable new engine, not an ugly automobile.

In the real world, the above scenario does not occur, because the inventor's engine invention is protectible by a utility patent. Without utility patent protection for novel storylines, analogous scenarios occur

on a regular basis with regard to fictional storylines. Is that why most movies and books relay the same hackneyed plots over and over again? What inventor, who isn't akin to Poe, would endure the time, sweat, and tears to embody his unique plot into a marginally readable novel or movie script, protectible only under copyright law, when a skilled, experienced Hollywood writer could lawfully, without even invoking copyright's "derivative" protection, embody the unique plot in a far superior story?

Inventors are not typically akin to Poe. In fact, few inventors are skilled at writing at all — hence the enormous market for \$300-an-hour patent attorneys. How can the public interests of fairness and of encouraging invention and proliferation of new and useful forms of entertainment be served if storyline inventions cannot be protected for what they are? Storylines are not expressions of anything. A storyline is not conducive, in and of itself, to copyright protection. A storyline is an *invention* that may be embodied in a useful, functional method for relaying that storyline, or in a tangible medium containing that storyline. Patent protection for storyline methods or storyline articles of manufacture is the next logical legal step in furtherance of the stated aims of patent law.

The following is an excerpt from one of the author's several test storyline patent applications already submitted to the Patent office.

Hollywood has been failing. Hackneyed plots are commonplace in modern movies and creativity has been replaced by expensive "special effects." Elaborate explosions and sophisticated fight scenes bore even the slightest intellect where the storyline is confused, dull, or lacking. There is a substantial need for original, intellectually exciting plots in all forms of entertainment, such as novels and, particularly, motion pictures.

Traditionally, patent protection has provided the economic and moral impetus for technological improvements in all fields. An inventor is motivated to absorb the substantial financial, time, and personal costs of identifying problems with current technologies and inventing solutions to those problems when he is assured the right to exploit that invention by excluding others from making, using, selling, offering to sell, and importing his invention.³⁸ Where patent protection is not available or is not easily obtained or enforced, such as in the typically statist welfare countries of Central and South America and communist countries such as China, technological

progress is stunted by at least two causes: a) inventors employed by a company have little motivation to disclose their inventions to the public, and thus tend to keep their inventions as trade secrets within the company; and b) independent inventors have virtually no motivation whatsoever to disclose their inventions to anyone, because of (justifiable) fears of expropriation.

In much the same way, the progress of intelligent fictional plots, particularly of movies, has been stunted worldwide. Currently, a writer may receive free, comprehensive, and automatic copyright protection on anything she writes. If her skill consists primarily of expressing old, stale concepts in new, creative, exciting ways, then she will benefit from copyright protection. However, if her skill consists primarily of inventing new and unique broad concepts, then copyright protection will only protect one of uncountably many possible expressions of those new and unique concepts. This dangerous dichotomy is explained further.

Patents and copyrights aim to protect different interests. A copyrighted work is a particular expression or embodiment of a broader concept. For example, a broad concept might be, "Life is worth living for its own sake, and the only economic system that respects humans' right to live freely for their own happiness, without brute force compulsion to be sacrificed for the benefit of others, is capitalism." A particularly beautiful expression of this broad concept is Ayn Rand's *Atlas Shrugged*, which is subject to copyright protection. Ayn Rand's estate does not own all embodiments of the broad concept — only the single expression embodied by her novel.

In sharp contrast, a patented invention protects each and every possible embodiment of a broad invention. Consider a patent on a car. It is not a particular actual car that is the subject of a patent, rather the entire class of possible cars that fall within the scope of the patent. In other words, a particular car is simply one protected embodiment of the broader patented invention. Because of the broad scope of rights afforded to a patent owner, one may not receive a patent on an invention that is old or obvious.³⁹

Thus, patent protection and copyright protection differ substantially on the ease with which infringement may be avoided. Because a patent protects all expressions or embodiments of the single broad invention, a competitor who desires to use or sell the invention without paying royalties may not; it may only avoid patent infringement by paying royalties or avoiding the invention altogether. In sharp contrast, a competitor who desires to use the broad concept disclosed in another's

³⁸ U.S.C. §271.

³⁹ U.S.C. §§102-103.

work (e.g., book or article) may freely do so without infringing any copyrights, even when the broad concept is new and nonobvious. All the competitor must do is to create a moderately different expression of the broad concept.

It is clear that copyrights protect those who are good performers: those who sing well, dance well, write well, act well, and so forth. Copyrights are based on a system of recognition in which society rewards performers because they express an old concept in an original (and hopefully desirable) way, not because they express a new concept. Of course, many artists do invent original concepts, but it is their expression of those concepts, not their creation or invention of those concepts, that copyright protection rewards.

For example, one who sings a touching version of "White Christmas" may receive copyright protection on his performance — not because he invented the concept of singing about Christmas — not because he wrote the lyrics to the song — but because his particular vocal expression of it is original. Further, a woman who writes and performs a love song may receive copyright protection on both the lyrics and her performance — not because she invented the concept of singing about love — but because her particular written expression of love, and her particular vocal expression of those written lyrics, are original. Finally, consider the man who invents an entirely new and nonobvious type of music or method of performing music. Clearly, copyright law cannot protect his invention. His only possible recourse — which, to date, has not been tapped for the field of artistic inventions, such as original movie plots and new types of artistic expression — is patent protection.

There is no reason — neither statute nor case law nor PTO practice — why artistic inventions are not patentable subject matter under 35 U.S.C. §101. In the landmark decision *Diamond v. Chakrabarty*, the Supreme Court held that living creatures were patentable subject matter under the doctrine that statutory subject matter includes "anything under the sun that is made by man," with three exceptions: laws of nature, physical phenomena, and abstract ideas. According to the Manual of Patent Examining Procedure, these three exceptions recognize that subject matter that is not a practical application or use of an idea, a law of nature, or a natural phenomenon is not patentable.⁴⁰

Certainly a movie implementing a unique plot is a practical application or use of the unique plot, so the unique plot should not be barred patentability under §101. The invention of a new plot is just that — an invention — not merely an expression of an existing concept. Similarly, the practical application or use of any new artistic invention should be patentable subject matter.

⁴⁰ 40 §2106 (IV)(A).

The fact that each particular expression (e.g., a movie) of a broad artistic invention (e.g., an original plot) is subject to copyright protection is not unique to artistic inventions. For example, the software code on a patented software-containing disk may also be copyrighted. The defining criterion separating the subject matter of patents from copyrights is not whether the subject matter is related to art — see the amusing counterexample of U.S. Patent No. 6,213,778 to Cohen. Rather, the defining criterion is whether the subject matter is a broad concept practically applied or used (in which case a patent is appropriate), or a particular instance, embodiment, expression, or performance of the broad concept (in which case a copyright is appropriate).

There is little fear that artistic creation will be halted due to the enforcement of patent protection newly applied to artistic inventions. A love song composer may indefinitely continue writing love songs without worry of infringing any patent, because the concept of writing songs about love is old and not patentable. Statute clearly requires an invention to be new and nonobvious to receive patent coverage. Thus, even if the broad concept or invention of singing about love were statutory subject matter under §101, it is as old as civilization, and would not survive an attack under §§102-103. In fact, most artistic concepts today are very old — which is precisely the problem that must be remedied by patent protection for artistic inventions. Unless patents on artistic inventions are upheld and enforceable, the great artistic minds of the day will be compelled to continue composing predictable love songs for pop stars and slightly altered dialogues for carbon copied movie plots.

There is currently little motivation for artistic inventors to innovate new plots, themes, and methods of expression. The value of an innovator's copyright, if he in fact embodies his invention in a particular expression (such as a novel or movie) is far less than the value of the invention itself, because the invention umbrellas every possible embodiment. Further, and perhaps more importantly, the value of his copyright depends on his ability as a performer, not as an inventor. An artistic inventor who invents a fantastically original and compelling storyline may not be a particularly skilled writer. He may, for example, have a very limited vocabulary and a poor understanding of grammar. Any book he creates will be avoided by any potential buyer who reads the first paragraph, such that the copyright value of his extremely valuable invention is nil. Any Hollywood producer who sees through the book's garbled sentence structure to the excellent and creative plot beneath the surface may steal the only value the book contained: its inventive plot. The producer may then moderately alter the expression of the plot in a subsequent movie — while keeping the plot's essence fully intact — and obtain unearned financial benefit from the inventor's unrewarded hard work and innovation. If there is any evil that the United States patent system ought to prevent, it is this.

Said another way: the *value* of a singer's performance or a dancer's performance or a writer's performance or an artist's performance is in the *performance*, while the value of an inventor's invention is in the *invention*, not a single instance, embodiment, expression, or performance of the invention. The value of a performance is protected by copyright; the value of an invention is not. An artistic innovator is given but two choices absent patent protection: to sacrificially innovate for the unearned benefit of thieves, or to not innovate. Both options are morally and practically repulsive.

A patent system that sanctions and defends patents on artistic inventions, such as new and nonobvious plots, will spur an array of never-seen-before, never-experienced-before, intellectually inspiring forms of entertainment. A patent system that lethargically clings to an as-of-yet unarticulated rule that artistic inventions are not patentable subject matter because they are not closely enough related to a mechanical gear or an electronic integrated circuit will guarantee our nation the same repertoire of mind numbing movies and dime-a-dozen boy bands.

VI. CONCLUSION

Case and statutory patent law provide no binding distinction, with regard to statutory subject matter, between software methods and storyline methods. Even tangible media containing unique storylines are so legally analogous to patentable software contained on functionally unrelated computer disks that DVDs and novels — the very epitome of “printed matter” — are probably “articles of manufacture” under Section 101. Will the Commissioner of Patents or the Federal Circuit agree? With several test patent applications already pending in the U.S.P.T.O., only time will tell.

To be continued...

POST SCRIPT

The Author presently seeks collaboration by a reputable intellectual property law firm in developing and advancing this new patent law field, including arguing the patentability of Storyline Patent claims before the Federal Circuit, if necessary, and in sharing in new business that may arise from the allowability of Storyline Patents. For further information, see www.PlotPatents.com, or contact the Author at info@PlotPatents.com.